

REMARKS

Reconsideration is requested.

The Examiner is requested to confirm that the figures filed April 16, 2004, are acceptable or advise the undersigned of any specific objection or rejection of the same.

The Examiner is also requested to confirm receipt of the certified copy of the priority document EP 99870225.2, filed in the present application on August 25, 2004 and certified copy of the priority document EP 94870132, filed July 29, 1994, and received by the Patent Office in the parent application Serial No. 08/612,973.

Claims 12-23 are pending.

The Section 112, first paragraph, rejection of claims 17-19, is traversed. Reconsideration and withdrawal of the rejection are requested in view of the following comments.

The specification, taken with the advanced level of skill in the present art, adequately describes how to make and use the claimed invention. The specification is directed to one of ordinary skill in the art.

The successful use of HCV envelope proteins or portions thereof as medicaments is known in the art. The Examiner is requested to see in this regard, for example, the attached U.S. Patent No. 6,635,257, and specifically Examples 4-6 of same. The Examiner is further requested to see U.S. Patent No. 7,101,561, and specifically Examples 15-18 of same. Finally, the Examiner is requested to see U.S. Patent Application Publication No. 2004-0126395 A1, and specifically, for example, Examples 19-21 of same. The claims are submitted to be supported by an enabling disclosure.

The above noted U.S. Patent Office publications are listed on the attached PTO 1449 Form. Return of an initialled copy of the attached PTO 1449 Form, pursuant to MPEP Section 609, is requested.

For completeness, the applicants note that the Examiner's enablement rejection of claim 17 is inconsistent with the Examiner's assertion that claim 17 is in the public domain (i.e., anticipated by the cited art). Withdrawal of at least one of the Section 112 and Section 102 rejections of claim 17 is requested.

The Section 102 rejection of claims 12-17, 20, 20 and 23 over Grakoui (Journal of Virology, 1993, pp 1385-1395, Vol. 67, No. 3), is traversed. The Section 102 rejection of claims 12-20, 22 and 23 over Watanabe (U.S. Patent No. 5,610,009), is traversed. Reconsideration and withdrawal of the Section 102 rejections are requested in view of the following distinguishing comments.

The Examiner's statement of the claims on page 4 of the Office Action dated August 14, 2006 is incorrect and to the extent relied on by the Examiner in comparing the claims to the art the rejections should be withdrawn. Specifically, the Examiner asserts that the

"Claims are drawn to an isolated HCV envelope protein or part thereof comprising at least one Cys amino acid that is **irreversibly** protected and wherein the reversible protection of Cys amino acids is removed." (Emphasis added.)

In fact, the claims are drawn to an isolated HCV envelope protein or part thereof comprising at least one Cys amino acid that is **reversibly** protected (see pending claim 12).

Moreover, the Examiner states that Watanabe et al. and Grakoui et al. disclose

"an isolated HCV envelope protein and particularly E1 protein comprising E1s and E1p".

The cited art fails to teach each and every aspect of the presently claimed invention however.

Specifically, Grakoui et al. disclose bacterial expression constructs harboring a part of the HCV E1 protein - in particular amino acids 236-382 - or a part of the HCV E2 protein - in particular amino acids 393-670 (see Table 1, p. 1386). These expression products are purified by preparative SDS-polyacrylamide gel electrophoresis and are only used for obtaining HCV-specific polyclonal antisera suitable for immunoprecipitation of SDS-denatured HCV antigens (p. 1386, right-hand column). Watanabe et al. disclose mammalian expression systems for expressing HCV (truncated) E1 proteins (see Fig. 2) that are used for diagnostic and therapeutic purposes.

Neither Grakoui et al. nor Watanabe et al. describe purification of HCV envelope proteins, or a cysteine residue of such proteins that would be reversibly protected, as required by the present claims.

Withdrawal of the Section 102 rejections is requested.

The claims are submitted to be in condition for allowance and a Notice to that effect is requested. The Examiner is requested to contact the undersigned in the event anything further is required in this regard.

BOSMAN et al.
Appl. No. 10/825,219
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Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /B. J. Sadoff/
 B. J. Sadoff
 Reg. No. 36,663

BJS:
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100